

11. Kalyani

Program Name: Kalyani.java

Input File: kalyani.dat

Kalyani loves numbers, and has been experimenting with an exercise with ranges of values. She uses an overall range of real number values from 0.0 to 9.9, using only the one-place precision values, i.e., 0.0, 0.1, 0.2...4.5, 4.6,...9.7, 9.8, 9.9. Each of those values is then mapped to another decimal value of any precision, for instance 2.365. She'll start with all of the values 0.0 through 9.9 mapping to 2.365, but then reassigns various ranges to different values. For instance, she could go from 1.3 up to but not including 4.5, where a new value is mapped to each number in that range, say 8.340. The data set that would indicate this range adjustment would be **1.3 4.5 8.340**.

A summary of those ranges would look like this:

```
0.0 1.2 2.365
1.3 4.4 8.340
4.5 9.9 2.365
```

Another range adjustment, using the values **3.6 7.5 4.23** (which means remap the values from 3.6 to 7.4 to the value 4.23), would yield a new summary:

```
0.0 1.2 2.365
1.3 3.5 8.340
3.6 7.4 4.23
7.5 9.9 2.365
```

A third adjustment, using the data line **3.5 5.0 6.87**, would be summarized as:

```
0.0 1.2 2.365
1.3 3.4 8.340
3.5 4.9 6.87
5.0 7.4 4.23
7.5 9.9 2.365
```

Input: An initial value N, followed by N sets of data. Each data set starts with a decimal value representing the initial value for the entire range, followed by an integer Q representing the number of adjustments to follow. Q sets of three values follow, all on one line, the first two indicating the range to be remapped, and the third the new value mapped to that range. All input values will be non-negative.

Output: The final summary of the value mappings, as shown in the example above and sample output below.

Sample input:

```
2
2.365
3
1.3 4.5 8.340
3.6 7.5 4.23
3.5 5.0 6.87
8.0
5
0.0 3.4 6.0
0.0 2.5 4.0
5.5 6.5 2.0
7.8 10.0 1.0
7.2 7.4 5.0
```

Sample output:

```
0.0 1.2 2.365
1.3 3.4 8.340
3.5 4.9 6.87
5.0 7.4 4.23
7.5 9.9 2.365

0.0 2.4 4.0
2.5 3.3 6.0
3.4 5.4 8.0
5.5 6.4 2.0
6.5 7.1 8.0
7.2 7.3 5.0
7.4 7.7 8.0
7.8 9.9 1.0
```